

## THE INFLUENCE OF SUPPLY CHAIN MANAGEMENT ON COMPANY PERFORMANCE THROUGH COMPETITIVE ADVANTAGE AS AN INTERVENING VARIABLE (Study at PT Berlian Gresik - INDONESIAN)

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### ABSTRACT

Given the Covid-19 pandemic, most companies are currently facing supply chain risks in the future. This provides a common thread that maintaining the stability of industrial supply chain management during the Covid-19 pandemic is a very important matter, including for PT Berlian Gresik. Based on the objectives, this study used a design explanatory research (hypothesis testing) with the causality approach which aims to explain causal relationships. The population in this study consisted of all employees at PT Berlian Gresik, totaling 96 employees. While the sampling technique in this study used a saturated sampling method, so that the sample used was also a number of existing populations. The analysis technique used is structural equation modeling with the Smart PLS 3 program tools. The results of this study are (1) Supply Chain Management positive and significant effect on Company Performance; (2) Supply Chain Management positive and significant effect on Competitive Advantage; and (3) Competitive Advantage has a positive and significant effect to Company Performance.

**Keywords:** *Supply Chain Management, Competitive Advantage, Company Performance*

### INTRODUCTION

In Indonesia, a number of State-Owned Enterprises (SOEs) have released financial statements in the first half of 2020. Many of them are performance plummeting due to the impact of the Covid-19 pandemic, even to the end of losses of trillions of rupiah. Call it PT Hutama Karya (Persero) recorded a sharp decline in financial performance in the first half

of 2020. The company's net income eroded 95.83 percent, down from Rp 1.10 trillion in the first half of 2019 to Rp 46.13 billion (Kencana, 2020).

Then PT PLN (Persero) which only pocketed a net profit of Rp 251.6 billion during the first half of 2020. This amount eroded 96 percent from the same period the previous year which amounted to Rp 7.3 trillion. Furthermore, Angkasa pura I and II,

Garuda Indonesia, and Pertamina recorded the largest debt inscribed by PT Pertamina (Persero) which suffered a net loss of USD 767.92 million, or around Rp 11.28 trillion in the first half of 2020. This figure is in stark contrast to the net profit of USD 659.96 million in the first half of 2019 (Kencana, 2020).

In addition to hitting large-scale state-owned enterprises, the Covid-19 storm also destroyed the stability of the performance of companies based on the processing industry. Based on Prompt Manufacturing Index (PMI) data issued by Bank Indonesia (BI), the industrial sector performance index decreased in the first quarter of 2020, from 51.5% in the fourth quarter of 2019 to 45.64% (Bank Indonesia, 2020).

According to a recent research study conducted in early 2020 by SAP and Oxford Economics with 1,000 supply chain executives, 39% of respondents said they had experienced negative risk events at some point in their supply chain over the past three years. With the Covid-19 pandemic, most companies today face future supply chain risks. This provides a common thread that maintaining the stability of industrial supply chain management in the Covid-19 pandemic is a very

important thing, not least for PT. Gresik Diamond (Laoli, 2020).

This can be because supply chain management has a role in minimizing overall costs (booking costs, storage costs, raw material costs, transportation costs and others) (Prawesti, et al., 2019). Therefore, supply chain management must be made as integrative as possible in order for the business to survive in the long term because the company has been able to align the resources it has with the market it wants to work on and its environmental conditions. In addition, the company can also compete to provide more value to consumers (stakeholders) and improve the company's performance (Pono, et al., 2020).

It can be understood from the description above is that if the company is able to realize its supply chain management and has the right strategy and cannot be imitated by competitors, then the company will have the advantage of competing until it will eventually be able to improve the company's performance. The novelty or novelty of the study is on the overall model elaborated from several studies that still show the inconsistency of the study. The form of the model derived from the results

of this elaboration has also never been found in empirical studies before.

Company performance is an indicator of the level of achievement that can be achieved and reflects the success of an organization, and is the result achieved from the behavior of organizational members. Performance can also be said to be a result (output) of a particular process carried out by all components of the organization against certain sources used (inputs). Furthermore, performance is also the result of a series of processing activities undertaken to achieve a particular organizational goal. For an organization, performance is the result of cooperative activities among members or components of the organization in order to realize organizational goals. Performance in the scope of the organization is the results of work that has been achieved by an organization in doing a job can be evaluated the level of performance. The success of goals and objectives in the organization depends on how the performance process is implemented (Taouab and Issor, 2019).

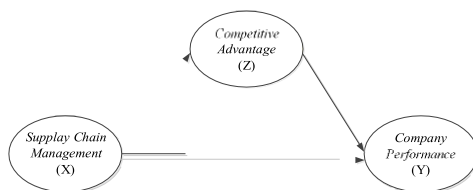
Competitive Advantage is the ability of companies to have much

higher performance and superior to competitors in similar industries through maximum managed characteristics and resources. A company is said to have advantages if it has characteristics, such as special competencies, such as having good quality, having a smoother distribution channel, faster product delivery and having a well-known product brand. This concept was first introduced in 1985 by Michael E. Porter, where Porter explained that competitive advantage is at the heart of the company's performance in the midst of increasingly competitive competition and how the company practices various strategic to be more advanced (Hossain, et al., 2019).

Supply chain management is often referred to as SCM. SCM becomes a very important field in the business world because it is directly connected to the competitiveness of the company. In the last two decades more and more companies are aware of the importance of this SCM so many are implementing it. SCM itself is the management and supervision of cycle chains ranging from materials or raw goods, payments, information from suppliers to manufacturers,

wholesalers checking to consumers. The supply chain is its physical network so that all companies will play a role in supplying raw materials, producing goods up to sending them to end users or consumers (Rekha and Sowmya, 2019).

Based on the description above, the analysis model in this study can be described as follows:



**Figure 1. Analytical Model**

## METHOD

Based on its objectives, this study uses the design of explanatory research (hypothesis testing) with a causality approach that aims to explain causal relationships (influences) between variables through hypothesis testing (Sekaran and Bougie, 2017). The causal relationship described is the influence of supply chain management and competitive advantage on company performance.

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to be

studied and then drawn conclusions (Suliyanto, 2018). The population in this study consists of all employees in PT. Gresik diamonds number 96 employees. While the sampling technique in this study uses saturated sampling methods, so that the sample used is also a number of existing populations. The analysis technique used is structural equation modeling with Smart PLS 3 program tools.

## RESULTS AND DISCUSSION

Based on the results of tests conducted using smart PLS 3 statistical program tools, the results obtained that:

### a) Outer Loading

Based on the results of the test conducted, the outer loading value is obtained as follows:

**Table 1. Outer Loading**

	Company Performance (Y)	Competitive Advantage (Z)	Supply Chain Management (X)
U1			0.892
U2			0.892
U3	0.787		
U4	0.789		
U5	0.861		
U6	0.820		
U7		0.812	
U8		0.813	
U9		0.812	
U10		0.731	
U11		0.800	

Source: Data Process Results

Based on the data presented in the table above it is known that in each indicator the research variable has a loading factor value of  $> 0.7$ . This can still be said to be quite good because the reliability indicator value above 0.70 belongs to the good

category, 0.40 to 0.70 is considered sufficient, and below 0.40 can be said to be unworthy. Referring to the above explanation it can be concluded that overall the indicators used in this study still meet the validity criteria and can be used for further analysis.

#### b) R-Square

Based on the results of the test conducted, obtained the following R-Square value:

**Table 2. R-Square**

	R Square	R Square Adjusted
Company Performance (Y)	0.589	0.580
Competitive Advantage (Z)	0.236	0.227

Source: Data Process Results

Based on the data presented in the table above, it can be known that the value of R-Square for Competitive Advantage is 0.236. The results explain that the large percentage of Competitive Advantage can be explained by a free variable of 23.6 percent. Then the R-Square value for Company Performance is 0.589. The results explain that the large percentage of Company Performance can be explained by other free variables of 58.9 percent.

#### c) Construct Reliability and Validity

##### (1) Cronbach Alpha

Based on the results of the test conducted, obtained the following

Cronbach Alpha value:

**Table 3. Cronbach Alpha**

	Cronbach's Alpha
Company Performance (Y)	0.844
Competitive Advantage (Z)	0.862
Supply Chain Management (X)	0.845

Source: Data Process Results

Strengthening the results of the reliability test above, also used cornbach alpha values. Where a variable can be expressed to meet cornbach alpha if it has a cornbach alpha value  $> 0.6$ . Based on the presentation of data in the table above it can be known that the cornbach alpha value of each researcher variable  $> 0.6$ . So that these results can show that each of the research variables has met the requirements of cornbach alpha values, so it can be concluded that the entire variable has a high level of internal consistency reliability.

##### (2) Composite Reliability

Based on the results of the test conducted, the composite reliability value is obtained as follows:

**Table 4. Composite Reliability**

	Cronbach's Alpha	rho_A	Composite Reliability
Company Performance (Y)	0.844	0.855	0.895
Competitive Advantage (Z)	0.862	0.866	0.903
Supply Chain Management (X)	0.845	0.844	0.907

Source: Data Process Results

Composite reliability is the part used to test the reliability value of indicators on a variable. A

variable can be declared to meet composite reliability if it has a composite reliability value of  $> 0.7$ . Based on the data presented in the table above it can be known that the composite reliability value of all research variables  $> 0.7$ . These results show that each variable has met the composite reliability so it can be concluded that the entire variable has a high level of internal consistency reliability.

### (3) Average Variance Extrated (AVE)

Based on the results of the test conducted, the average variance extrated (AVE) value is obtained as follows:

**Table 5. Average Variance**

	Company Performance (Y)	Competitive Advantage (Z)	Supply Chain Management (X)
U1	0.526	0.289	0.316
U2	0.518	0.414	0.302
U3	0.717	0.454	0.409
U4	0.387	0.523	0.339
U5	0.395	0.530	0.442
U6	0.284	0.627	0.527
U7	0.406	0.563	0.479
U8	0.541	0.482	0.421
U9	0.477	0.413	0.444
U10	0.560	0.466	0.474
U11	0.522	0.721	0.319
U12	0.515	0.490	0.480

Source: Data Process Results

Another method used to check convergent validity values requires an evaluation of average variance extracted (AVE) of each latent variable. The AVE value is expected to  $\geq 0.5$  to ensure that each variable has a decent convergent validity parameter. The table above shows that the overall variables used in this study have a decent convergent

validity. By ensuring convergent validity, it can be continued for the examination of the validity of the next stage.

### (4) Discriminant Validity

Based on the results of the test conducted, the discriminant validity value is obtained as follows:

**Table 6. Discriminant Validity**

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extrated (AVE)
Company Performance (Y)	0.894	0.853	0.873	0.607
Competitive Advantage (Z)	0.862	0.866	0.901	0.613
Supply Chain Management (X)	0.845	0.844	0.807	0.355

Source: Data Process Results

Based on the presentation of data in the table above it can be known that each indicator on the research variable has the largest cross loading value on the variable it formed compared to the cross loading value on other variables. Based on the results obtained, it can be stated that the indicators used in this study already have a good discriminant validity in compiling their respective variables.

### (5) Path Coefficient

Based on the results of the test conducted, the Path Coefficient value is obtained as follows:

**Table 7. Path Coefficient**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (SD)	T-Statistic (O-SD/SE)	P-Value
Competitive Advantage (Z) → Company Performance (Y)	0.86	0.90	0.07	1.54	0.06
Supply Chain Management (X) → Company Performance (Y)	0.82	0.84	0.08	4.52	0.00
Supply Chain Management (X) → Competitive Advantage (Z)	0.81	0.84	0.05	5.00	0.00

Source: Data Process Results

In general, explanatory research

methods are method approaches that use PLS. This is because in this method there is a hypothesis test. Testing hypotheses can be seen from t-statistical values and probability values. For hypothesis testing using statistical values then for alpha 5% the t-statistical value used is 1.96. So the criteria for acceptance or dispelling of the Hypothesis is ha accepted and H0 is rejected when the t-statistics  $> 1.96$ . To reject/accept the Hypothesis using probability, Ha is accepted if the value  $p < 0.05$ . Based on the table above, it can be known that all hypotheses have a probability value  $p < 0.05$ , so that it can be decided that all hypotheses in this study can be accepted or proven to be true.

Referring to the results of the Path Coefficient, it can be explained and translated as follows:

**a) The Influence of Supply Chain Management on Company Performance**

Based on the Path Coefficient it is known that the calculated value of Supply Chain Management is 4.535 with a signifikansi value of 0.000 ( $< 0.05 = \text{significant}$ ) and has a positive sign. This provides a depiction that

the direction of influence given is unidirectional, where if Supply Chain Management increases, then Company Performance will also increase, and vice versa.

Supply chain management in a company has an important meaning, because the purpose of the supply chain itself is to meet the needs of consumers and maximize profits. With the supply chain the company can monitor the management of the flow of information, products and funds from upstream to downstream or vice versa. Supply chain contribution to the company's performance is the process of integration at stages in the supply chain such as information flow, long-term relationships with suppliers and cooperation with related parties in the supply chain (Rekha and Sowmya, 2019).

These results are supported by research conducted by the explanation above implying that supply chain management basically has an influence on the performance of the company. This is relevant to research conducted by Jermittiparsert & Boonratanakittiphumi (2019), Kumar and Kushwaha, (2018),

Pono, *et al.* (2020) and Siahaan, *et al.* (2020) which states that supply chain management influences the company's performance.

#### **b) The Influence of Supply Chain Management on Competitive Advantage**

Based on the Path Coefficient it is known that the calculated value of Supply Chain Management is 6.928 with a signifikansi value of 0.000 ( $< 0.05 = \text{significant}$ ) and has a positive sign. This gives a depiction that the direction of influence given is unidirectional, where if supply chain management increases, then competitive advantage will also increase, and vice versa.

Increasingly fierce business competition between companies encourages companies to produce the best performance. Companies must be able to create a competitive advantage in order to generate economic value for companies that are better than competitors (Prawesti, *et al.*, 2019). Companies need to implement optimal supply chain management. The application of supply chain management is able to reduce the effects of competition in the market because supply chain

management can result in a company's competitive advantage.

Companies can achieve competitive advantage by doing optimal and good supply chain management. Companies perform better than competitors because supply chain management is able to minimize overall costs to meet and serve consumer needs. Supply chain management is all parties involved, either directly or indirectly in fulfilling consumer orders and demands. All parties involved not only consist of producers or suppliers, but also involve distributors, storage, sellers and consumers (Hossain, *et al.*, 2019).

The above explanation provides an idea that supply chain management basically has an influence on competitive advantage. This condition is relevant to research conducted by Pono, *et al.* (2020), Siahaan, *et al.* (2020), Subhan & Putro (2017), Widyanesti & Masyithah (2018) which states that supply chain management has a significant influence on competitive advantage.

#### **c) The Influence of Competitive Advantage on Company**



## Performance

Based on the Path Coefficient it is known that the calculated value of Competitive Advantage is 5.113 with a signifikantion value of 0.000 ( $< 0.05 = \text{significant}$ ) and has a positive sign. This gives a depiction that the direction of influence given is unidirectional, where if Competitive Advantage increases, then Company Performance will also increase, and vice versa.

Competitive advantages are company formulation strategies designed to achieve opportunities that cannot be replicated by competitors to maximize profits and be profitable. When a company has something that is very desirable from a competing company, or is able to do something that is not able to be done by a competitor company, it is able to represent a competitive advantage (Pono, et al., 2020). The above opinion implies the meaning that Competitive Advantage has an influence on the company's performance. This is supported by research put forward by Pono, et al. (2020), Siahaan, et al. (2020), Subhan & Putro (2017), Widyanesti & Masyithah (2018).

## CONCLUSION

Based on the results of the test, as well as the analysis of the results and discussions, the conclusions that can be taken are (1) Supply Chain Management positive and significant influence on the Company Performance; (2) Supply Chain Management has a positive and significant effect on Competitive Advantage; and (3) Competitive Advantage has a positive and significant effect on Company Performance.

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